

RI PUC Storage Stakeholder Proceeding
December 12, 2022 Workshop
Instructions for Stakeholder Assignment

Stakeholder Assignment: Using the 4600 Benefit Cost Framework to Qualitatively Analyze the Benefits of Storage

During the December 12, 2022 Storage Stakeholder Workshop, stakeholders will be assigned a worksheet to complete after the workshop. The worksheet contains 32 rows that each correspond to a benefit category of the 4600 Benefit Cost Framework. The worksheet also contains 3 groupings of columns that represent three possible operational configurations for storage resources: charging, discharging, and standing by. Nested within each operational configuration grouping is at least one scenario under which storage resources could operate in that operational configuration. For example: in a charging configuration, storage resources could be charging during periods of low load or during periods of high generation; these two scenarios are reflected in a series of columns under the same operational configuration header. For this assignment, stakeholders will be asked to qualitatively analyze the benefits that storage resources can provide under these operational configurations and scenarios.

To complete the worksheet, select a benefit category (i.e. row) and analyze the benefit under the specific configurations and scenarios presented by each column, moving left to right. Note the results of your qualitative analysis in each cell. Responses should address the following qualitative factors, at a minimum: magnitude of benefit, degree of confidence in the magnitude of benefit, and potential ambiguity in the magnitude of benefit. Short sentences and bullet points are acceptable response formats.

To assist your analysis, definitions for each resource configuration scenario are provided below:

- Low Load = scenario in which a storage resource is charging during a period of low load when there are no constraints on the power system.
- High (Clean) Generation = scenario in which a storage resource is charging during a period of high clean generation when the volume of available clean generation exceeds what the power system can handle, given load levels.
- Summer Demand = scenario in which a storage resource is discharging coincident with peak demand, which occurs during summer.
- Winter Demand = scenario in which a storage resource is discharging coincident with peak demand, which occurs during winter.
- System Outage = scenario in which a storage resource is standing by and available to charge or discharge during a power system outage.

Completed worksheets are **due by 4 pm on December 29, 2022**. Please email your completed worksheet to Emma.Rodvien@puc.ri.gov.